The Morality of Pronoun Flexibility: Connections Between Language and Cognitive Identity Alignment

By Mafalda von Alvensleben

1 Program in Cognitive Science, Yale University

ABSTRACT

The power of words we use to refer to one another is gaining recognition in contemporary socio-political discourse. Yet, interplay between language and complex cognitive processes, including moral judgments and identity formation, largely remains subject of philosophical and theoretical debate. In order to begin examining the existence of such interactions empirically, this paper investigates the syntactic shift of the third person plural pronoun they/them to the third person singular, used to refer to gender non-binary/gender nonconforming individuals. Using grammaticality acceptance ratings and the Worthen 2016 moral attitudes test, administered under timed pressure, this study measures both intuitions surrounding the syntax of novel they/them pronoun usage and moral attitudes towards LGBTQIA+ individuals. Analysis revealed a strong positive correlation between high grammaticality ratings of novel pronoun (they/them) usage and moral attitude scores. These results may be the basis for future investigation into a psycholinguistic connection between intuitive judgements of syntax and complex cognitive processes i.e., moral judgments.

1.0 INTRODUCTION

Sometimes we drug ourselves with dreams of new ideas. The head will save us. The brain alone will set us free. But there are no new ideas waiting in the wings to save us as women, as human. There are only old and forgotten ones, new combinations, explorations and recognitions from within ourselves—along with the renewed courage to try them out.

- Audre Lorde from Sister Outsider: Essays and Speeches, 1984

The connections between human language and the mind are integral to our everyday experience, enabling us, as Chomsky’s theory of language goes, to transfer the contents of our own thoughts into the minds of others. Yet, as we move into a new decade, the importance of language as it refers to identity has taken center stage. For instance, in 2019, the American Dialect Society chose the pronoun “they” as their word of the decade in recognition of its growing usage to refer to gender non-binary individuals (The Guardian, 2020). In fact, the syntactic shift of the pronoun they/them from strictly third person plural to third person singular stands out as one of the most salient manifestations of the interplay between language and identity today.

The creation of new lexical items in a language occurs through a variety of mechanisms ranging from blending to borrowing to coinage of entirely new lexical items. Lexical item creation occurs through alterations to the different components of lexical items (phonology, syntax, morphology, and semantics) and happens regularly in “open” syntactic categories such as verbs, nouns, adjectives, and adverbs. Syntactic categories, in contrast to the more vaguely defined “parts of speech” that many are familiar with, refer to groups of lexical items that perform syntactic function as determined by linguistic tests (Linguistics Stack Exchange, 2013). Pronouns (part of the syntactic category pronominal) are considered to be closed class items, meaning that they are rarely altered, making the broadening of the they/them pronoun usage particularly monumental.1

This linguistic shift has grown in popularity following the rise of LGBTQIA+ activism and the introduction of theories from Women’s, Gender, and Sexuality Studies (WGSS), which posit that pronouns communicate our assumptions about people’s gender.2 Since gender identity has become a subject of moral and sociological debate,3 the pronouns used to refer to others can be thought of as a projection of one’s personal narratives about the gender identity of an individual (Brown). Frohard-Dourlent, Wood, Saewyc, Eisenburg

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1This was an aspect of both lexical item creation and syntactic categorization discussed in lectures by Professor Piñango.

2Here, gender refers to the notion that gender is a social construct created by factors such as behaviors and expressions of identity that include, but are not limited to, women/girls, men/boys, and gender diverse peoples. These exist on a fluid spectrum along which people’s gender identity can exist (Canadian Institute of Health and Research; Mikkola, M., 2017). By contrast, sex refers to sets of biological attributes in human and non-human animals and is generally associated with things such as reproductive hormones, chromosomes, and gene expression (Canadian Institute of Health and Research). This model of sex and gender, though widely accepted in many circles, has its drawbacks and flaws as pointed out by feminist philosopher Judith Butler (Mikkola, M., 2017). However, a more in-depth discussion of this falls outside of the scope of the study for the time being.

3Note from the author: In saying this, I do not make want to make prescriptive claims about gender identity and morality. This is more to acknowledge that in contemporary discourse in the United States, the validity of gender identities that fall outside of the gender binary is a matter of debate in many communities. This does not mean that your identity is or should be anything outside of what you know it to be. However, there remains significant community of people who (in my view, wrongly) reject the validity of this identity, which is, in part what inspired the writing of this paper.
usage at level of syntax. mechanisms through which moral judgements influence language and moral judgments may suggest the existence of psycholinguistic about identity. So, establishing a connection between grammatical about syntax and psychological and contemporary cultural questions Further, pronoun usage exists at an intersection between intuitions pragmatic implications of the rare case of novel pronoun application. is of interest for the field of linguistics as it investigates the semantic/ Worthen’s 2016 moral attitudes test towards LGBT they/them is positively correlated with positivity scores in ing if grammatical acceptability ratings liminary connection between language and moral judgments by ask empirically tested. Therefore, this paper seeks to investigate a pre sort for one’s cognitive well-being. being constantly “mis-gendered” as a “death by a thousand cuts” of sorts for one’s cognitive well-being.

However, the notions explained above are primarily products of theory, philosophy, and self-reports/general culture which have not been empirically tested. Therefore, this paper seeks to investigate a preliminary connection between language and moral judgments by asking if grammatical acceptability ratings of the third person singular pronoun they/them is positively correlated with positivity scores in Worthen’s 2016 moral attitudes test towards LGBT six individuals. This is of interest for the field of linguistics as it investigates the semantic/pragmatic implications of the rare case of novel pronoun application. Further, pronoun usage exists at an intersection between intuitions about syntax and psychological and contemporary cultural questions about identity. So, establishing a connection between grammatical and moral judgments may suggest the existence of psycholinguistic mechanisms through which moral judgements influence language usage at level of syntax.

1.1 Research Question

This may also be thought of as “mind melding” in terms of cognitive psychology.

Methodology drawn from a presentation given in lecture by Professor Piñango.

The test from Worthen’s 2016 paper is entitled utilizing only the first few letters (LGBT) representing lesbian, gay, bisexual, and trans* individuals. However, it is important to note this community encompasses more identities than the four identities highlighted in the acronym including asexual, intersex, queer and so much more as denoted in the more widely used LGBTQA+ where the “+” denotes aspects of the gender and sexuality spectrum that do not or have not yet found words to describe or encompass them.

Are judgments about the grammatical acceptability of pronouns a manifestation of a person’s moral attitudes? Here, moral attitudes refer to overall moral attitudes toward the LGBTQA+ community including questions that probe participants’ feelings surrounding gender attribution (i.e., gender presentation, preferred pronoun usage, and acceptability of a gender spectrum in contrast to a gender binary).

2.0 METHODS

2.1 Subjects

Participants for this study consisted of family, friends, and peers of age 18 and over consenting to participate in a 10-minute anonymous survey. Participants included in the final analysis were all self-identified fluent English speakers with all non-fluent respondents excluded from final analysis. No age, ethnicity, or gender restrictions were grounds for exclusion as the aim is for results to remain as generalizable as possible to “English speakers.” This study received IRB exemption from Yale University.

2.2 Linguistic Materials

Participants rated the grammaticality of 20 sentences modeled after Bradley et al. (2019) under time pressure. It was assumed that when participants rated grammaticality, they took the ordinary perspective on language: a prescriptive perception of language “correctness” according to sociological factors (Piñango, 2020). Sentences consisted of minimal pairs where one sentence randomly contained either gender neutral pronouns, they/them or a typical/gendered pronoun (he/him or she/her) evenly distributed across trials. E.g., “Sam liked their ice cream very much,” versus, “Sam liked her ice cream very much.”

Four types of sentence subjects were used: gendered names, gender neutral names, nameless definite, and nameless generic. Gendered names had a robust normatively gender connotation measured by census data of birth certificates, from which it was assumed that the likelihood participants were exposed to, for example, females (nor nameless generic). Gendered names that fall outside of the gender binary, illuminating a growing trend present norms predict that the majority of the population utilizes pronouns that exist exclusively in the gender binary. Nevertheless, according to a survey conducted by The Trevor Project (2020), 1 in 4 LGBTQ+ youth use pronouns that fall outside of the gender binary, illuminating a growing trend toward acceptance and normalization of gender as existing on a spectrum in younger generations.

Presently, definitive data on the number of people in the United States who identify as gender non-binary was not found in this literature review. Unfortunately, it is not yet standard practice for comprehensive demographic surveys to include options for preferred pronouns and gender identities outside of the gender binary. For the purposes of this paper, we assume present norms predict that the majority of the population utilizes pronouns that exist exclusively in the gender binary. Nevertheless, according to a survey conducted by The Trevor Project (2020), 1 in 4 LGBTQ+ youth use pronouns that fall outside of the gender binary, illuminating a growing trend toward acceptance and normalization of gender as existing on a spectrum in younger generations.

[Survey v1: https://yalepsych.qualtrics.com/jfe/form/SV_aW2emuTLiG-S9lZ3]
[Survey v2: https://yalepsych.qualtrics.com/jfe/form/SV_5jWfh1T7D8u-suSF]
which one could assume a higher likelihood that participants were exposed to both males and females (normatively determined users of he/him/his and she/her/hers pronouns, respectively) with the given name. For example, the name “Taylor” is used for both male and female babies who are likely to go on to use he/him and she/her pronouns, respectively. 7 All names were chosen using a database provided by the Department of Social Security (see References).

To widen the scope of pronoun-use contexts, a nameless definite condition was included, meaning that the subject was “nameless,” and the sentence linguistically constructed to remain in the singular (Bradley et al., 2019). E.g., “My friend went to the store.” To ensure stimulus robustness, the nameless generic condition served to replicate previously demonstrated acceptability of the third person singular use of they/them pronouns to refer to semantically categorized “generic” subjects in English (Bradley et al., 2019), e.g. “A person must learn to tie their shoes.” The logic follows that generic subjects were not linked with sociological perceptions of gendered information and should, therefore, have no correlation to broader issues of gender identity. Finally, to create a lower base rate for grammaticality ratings, intentionally ungrammatical controls for each sentence type (from which the ungrammaticality stems from pronoun usage) were included. E.g., “The person arrived at she home.”

2.3 Design

There were two versions of the survey (one version per participant), each containing equal sets of sentence types (elaborated in section 2.2) with one version containing a gendered (she/her or he/him) or neutral pronoun (they/them) and the other containing the reverse, forming controlled minimal pairs (see Appendix). Each survey also included a series of ungrammatical sentences as controls. Each version had equal numbers of each pronoun and sentence type in a randomized order.

The survey took an estimated 10 minutes on average to complete. The first set of questions asked for the participant’s age and English proficiency. Following this, participants were presented with sentences and asked to rate them on a five-point scale, 1 being “completely ungrammatical” and 5 being “completely grammatical”. Next, participants took the moral attitudes towards LGBT individuals test (Worthen 2016), where questions were rated on a seven-point scale from “strongly agree” to “strongly disagree.” A countdown timer was included at the beginning of each section to discourage participants from overthinking the survey. This is because the study aims to explore implicit connections between pronoun usage and morality in order to understand how participants make judgments about pronouns on a day-to-day basis. Here, participants were assumed to make these day-to-day moral judgments rapidly, remaining largely incognizant of the moral implications of pronoun usage.

<table>
<thead>
<tr>
<th>Sentence Type</th>
<th>Gender Neutral Pronoun (They/them)</th>
<th>Gendered Pronoun (she/her or he/him)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gendered Name</td>
<td>p=0.0284</td>
<td>p=0.5556</td>
</tr>
<tr>
<td>Gender Neutral Name</td>
<td>p=0.007503</td>
<td>p=0.5077</td>
</tr>
<tr>
<td>Nameless Definite</td>
<td>p=0.02656</td>
<td>p=0.4724</td>
</tr>
<tr>
<td>Nameless Generic</td>
<td>p=0.9384</td>
<td>p=0.9225</td>
</tr>
<tr>
<td>Overall gender-neutral pronoun and morality</td>
<td>p=.01446</td>
<td>N/A</td>
</tr>
<tr>
<td>Controls</td>
<td>p=0.3456</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Table 1: Compiled p values for each sentence type (gendered name, nameless generic, etc) and pronoun type (she/her, they/them)

The data was encoded based on the sentence type, as well as pronoun usage (see Appendix) and scored based on the survey responses, yielding an overall grammar rating for each combination respectively. Similarly, the Worthen 2016 was scored based on survey responses to yield an overall positivity score for each participant. The scores were subsequently correlated using R software, yielding a p-value for each individual sentence type.

2.4 Procedure

Surveys were distributed via text message, email, and Facebook and randomized for survey version, utilizing recruitment materials (see Appendix). Data collection lasted for one week to allow for a sizable number of respondents.

2.5 Predictions

The use of the third person singular pronoun they/them/ theirs will be rated as more grammatically correct by individuals who have positive moral attitudes towards gay/queer, bi/pansexual, trans, and non-binary people.
3.0 RESULTS

All data was collected through coded Qualtrics survey software. The survey was closed with a final N=109 (35 men, 56 women, and 2 nonbinary) with respondents between the ages of 15-75. Data was analyzed using R software to calculate p-values for each individual combination of sentence type along with the corresponding pronoun type.

Positive correlation between morality score and grammaticality score of first person singular they/them (composed of gendered, gender neutral, and nameless definite sentence types) was statistically significant (p = .014). Significance from the composites of this average are as follows: nameless definite condition with a positive correlation between nameless definite sentences and morality scores (p = .003), followed by a positive correlation between the gender-neutral name condition and morality scores (p = .008), and a positive correlation between gendered name condition and morality scores (p = .028). Further, no statistically significant correlation was found between the morality scores and sentences using gendered pronouns (p=0.5556, p=0.4724, p=0.9225 for gendered name, gender neutral name, nameless definite, and nameless generic conditions respectively).

Given the frameworks discussed in previous sections regarding WGSS theory, one might have predicted high grammaticality scores to correlate with low moral attitude scores. However, this paradigm focuses primarily on violations of syntactic shifts in gender neutral pronoun use. Further, given that the sample of individuals surveyed had little to no distribution of extremely low scores on the morality survey component, it becomes even more difficult to make any conclusive claims on matters outside of gender-neutral pronoun usage. Despite this, the breakdown preliminarily confirms the prediction of a statistically significant positive correlation (p < .05,) between moral judgments of LGBTQIA+ individuals and grammaticality ratings of third person singular they/them pronouns exists.

The nameless generic condition (sentence with generic, unnamed subject e.g., “a person,” “an athlete,”) had a p-value of .923 for the “gendered pronoun” condition and p = .939 for the “gender-neutral pronoun” condition. As expected, these results are not statistically significant in concurrence with previous research findings (Bradley et al., 2019). Lastly, the “ungrammatical” condition found no correlation indicating at least partial understanding of the surveyed stimuli for research purposes.
DISCUSSION

The aim of this study was to gain a better understanding of the connection between influences of higher-level mental processes and language as well as investigate possible semantic/pragmatic implications of a markedly rare change in lexical items in the pronominal syntactic category. The introduction of the third person singular pronoun they/them is taken as an ideal subject to study this, as it exemplifies how everyday language syntax can be used to communicate newly personal and salient aspects of semantic/pragmatic judgments of identity (in this case, gender identity). Though the design of this study does not get at the direction of this interaction (mind to language or language to mind), the positive correlations between sentence and morality judgements give tentative reason to believe that some important connection exists between judgments of language and judgments of morality in the case of pronoun usage and support for the LGBTQIA+ community.

Again, these results are strictly correlational, meaning that nothing can be said of causational mechanisms or directionality of the observed effect. However, this study can be used as a means to highlight a viable line of empirical inquiry that seeks to understand connections between moral judgments and their manifestation in the subtleties of language or vice versa. Further, if a robust link between these factors exists, there may also be a psycholinguistic justification for the importance of conscientious or “politically correct” language, as it may be a direct manifestation of our moral acceptance of an individual’s gender identity. Given the importance of alignment between external and internal moral narratives/identity for mental health, this research could be used specifically to help understand a mechanism by which LGBTQIA+ individuals experience higher rates of mental health problems.

APPENDIX

Sentence Stimuli

Gender neutral names

River made the chicken that __ mom recommended. Her/Their

After Taylor finished work, __ decided to go to the movies. They/She

The teacher called on Sam to see what __ answer was. Their/her

Ro ordered the food when it was his turn. His/Their

Gendered names

Mike took a hot shower after __ got back from work. She/They

Sarah sleeps in when __ dog stays quiet. Her/Their

When I asked Lucy to fix my computer, __ came over right away. They/He

John is late because __ forgot to lock the door. They/He

Nameless Definite

After my employee finished the call, __ picked up the coffee. They/He

That person wanted to show __ art in a gallery Their/His

When my friend finished lunch, __ went back to work. She/They

That person brought __ lunch from home. Their/Her Nameless Generic

When a friend helps me, I try to help __ too. Them/Her

If someone makes a mistake __ must keep going. She/They

When a child asks for my help, I try to give it to __. Him/Them

A runner should always stretch __ body before working out. Her/Their

Ungrammatical Controls

Nameless definite

When my friend arrived at work, __ sat at His/their desk. Him/Their

Nameless generic

If a driver is tired __ should take a break. Her/Them

Gendered name

Lily walked out of __ apartment when it was time for work. Them/Him

Gender neutral name

...
Rowan arrived at class on time. They/Him

Worthen’s Moral Attitudes Towards LGBT Individuals

CW: This questionnaire features statements and language that describes sexual anatomy. There are also questions which probe conceptualizations and attitudes towards LGBTQIA+ individuals that are overtly homophobic/transphobic. This may be distressing for readers. Unfortunately, these statements encompass widely held beliefs/attitudes about LGBTQIA+ individuals today in the United States; many of which are still discriminatory and dehumanizing. I feel the need to say explicitly: no matter your identity or who you love, you are worthy of care, respect, and humanity.

I would not mind going to a party that included gay/lesbian/bisexual/queer people.

I would not mind working with gay/lesbian/bisexual/queer people.

I welcome new friends who are gay/lesbian/bisexual/queer.

I do not think it would negatively affect our relationship if I learned that one of my close relatives was gay/lesbian/bisexual/queer.

I am comfortable with the thought of two men or two women being romantically involved.

I would remove my child from class if I found out the teacher was gay/lesbian/bisexual/queer.

It is alright with me if I see two men or two women holding hands.

I would not vote for a political candidate who was openly gay/lesbian/bisexual/queer.

Marriages between gay/lesbian/bisexual/queer people should be legal.

I am morally against gay/lesbian/bisexual/queer people being parents.

Being gay/lesbian/bisexual/queer is morally wrong.

Being gay/lesbian/bisexual/queer is a sin.

Being gay/lesbian/bisexual/queer is a mental disease.

Physicians and psychologists should strive to find a cure for non-straight (gay/lesbian/bisexual/queer) people.

Gay/lesbian/bisexual/queer people should undergo therapy to change their sexual orientation.

Most men and women who call themselves bisexual/pansexuality are temporarily experimenting with their sexuality.

Just like homosexuality and heterosexuality, bisexuality/pansexuality is a stable sexual orientation for people.

Being bi/pansexual is morally wrong.

Sex change operations are morally wrong.

If I found out that my best friend was changing their sex, I would freak out.

If a friend wanted to have their penis removed in order to become a woman, I would openly support them.

Men who see themselves as women are morally wrong.

Women who see themselves as men are morally wrong.

I would avoid talking to a woman if I knew she had a surgically created penis and testicles.

It is morally wrong for a woman to present herself as a man in public.

It is morally wrong for a man to present himself as a woman in public.

Gender is a spectrum where your gender identity is what you feel you are and sex is what you are biologically assigned and these two things are separate.
Being nonbinary/genderfluid is morally wrong (here non binary/genderfluid means not identifying as a man or woman).

ACKNOWLEDGMENTS

Thank you to both Professor Piñango and Chris Geissler for their passion and dedication to getting everyone excited about linguistics. I will never think of language the same way again, and I am eternally grateful.

Also, thank you to Ken Steir for your patience with my number and R incompetence and listening to me ramble about “self-verification theory, lexical conceptual structures, hermeneutical resources, and how this all ties into some pronoun business,” into the wee hours with frayed hair, in massive fluffy robe, and one eye that wouldn’t stop twitching. I marvel at your courage.

Lastly, I thank Joanna Blake Turner for sharing her work on philosophy surrounding gender identity which sent me off on this train of thought in the first place.

RESOURCES

Trevor Project: The Trevor Project is the leading national organization providing crisis intervention and suicide prevention services to lesbian, gay, bisexual, transgender, queer & questioning (LGBTQ) young people under 25. To call or text: (866)-488-7386

GBT National Youth Hotline (ages 23 and under): Free and Confidential peer support for the LGBTQ and questioning community ages 25 and younger. Mondays to Fridays from 1 pm – 9 pm PST and Saturday from 9 am – 2 pm PST. Call: (800) -246-7743

WEAVE Crisis Intervention For Domestic Violence and Sex Trafficking/Sexual Assault: All of WEAVE’s services can be accessed by calling the Support and Information Line. WEAVE’s 24-Hour Support and Information Line offers immediate intervention and support by trained peer counselors. Help is available in over 23 languages. Call: (916)-920-2952

REFERENCES


https://cihr-irsc.gc.ca/e/48642.html
Mafalda von Alvensleben is a sophomore in Benjamin Franklin College, studying cognitive science with a concentration in contemporary ethics and the future of morality. With a keen interest for language and cognition, von Alvensleben’s research article was initially a paper from her class “Language in the Mind” with Professor Maria Piñango. Her interest in the topic of pronouns kick started from her interactions with her parents and their friends.

“When my parents moved to the States from Germany, they created a kind of community of expats. This means we have a lot of friends that are from all over the world, so we had a lot of accents and languages going on around the dinner table.” von Alvensleben recalls. Though not always understanding the specifics of what was said, this introduced her to the fluidity of language and its use as a part of what brings people together. She continues, “being a part of the Queer and Disability community and having the chance to learn from others in those communities, though, I began to think more deeply about the words we use to refer to one another and the weight that they carry, especially surrounding things like identity.”

To dive further into this topic, von Alvensleben decided to choose a research topic on whether the moral attitudes toward LGBTQ+ individuals predict how comfortable people are with using pronouns. She also participates in neuroscience research with the Crockett lab, researching moral storytelling—stories others tell in order to communicate something about themselves more specifically, for example, “cancel” culture. Outside of the Crockett lab, von Alvensleben manages production for the Yale Undergraduate Research Journal, designs costumes for theater, and serves as the president of Disability Empowerment for Yale. She is also enrolled in the five-year Masters of Public Health, where she will concentrate in social and behavioral science. Ultimately, von Alvensleben is interested in diving deeper into bioethics, disability rights, and public policy.

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